

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-26 (Canceled).

27. (Original) A method of manufacturing an ultra-low carbon steel sheet in which molten steel having a chemical composition including, in mass percent, C: at most 0.010%, Si: at most 0.5%, Mn: at most 1.5%, P: at most 0.12%, S: at most 0.030%, Al: at most 0.080%, N: at most 0.0080%, one or both of Ti: at most 0.10% and Nb: at most 0.05%, B: 0-0050%, V: 0-05%, and Ca: 0-0050% is subjected to refining in a converter, secondary refining after refining in the converter, continuous casting, and then hot rolling, wherein at the time of the secondary refining, the molten steel is tapped into a refining vessel, a vacuum immersion pipe having an interior that can be adjusted to a negative pressure is immersed in the molten steel in the refining vessel, and a stirring gas is blown into the molten steel.

28. (Original) A manufacturing method for an ultra-low carbon steel sheet as claimed in claim 27 wherein the amount of FeO+MnO in the slag in the refining vessel is at most 15 mass %, and the throughput at the time of casting is at most 5 tons per minute.

29. (Original) A manufacturing method for an ultra-low carbon steel sheet as claimed in claim 27 wherein the hot rolling of a slab obtained by the continuous casting is commenced after making the average temperature of the slab at least

1100°C, the finishing temperature of hot rolling is made at least the Ar_3 point, and the coiling temperature is made 450-750°C.

30. (Original) A manufacturing method for an ultra-low carbon steel sheet as claimed in Claim 29 wherein the hot rolling, heating or temperature holding process for a short period of time is carried out after rough rolling, and the finishing temperature of hot rolling is made at least the Ar_3 point over the entire length of a hot rolled coil.

31. (Original) A method of manufacturing an ultra-low carbon steel sheet as claimed in claim 27 wherein the obtained hot rolled steel sheet is subjected to descaling, cold rolling with a reduction of at least 45%, and annealing, with soaking being carried out at a temperature of at least 650°C when the annealing treatment is batch annealing and at a temperature of at least 750°C when the annealing treatment is continuous annealing, and then temper rolling is carried out.

32. (Original) A method of manufacturing an ultra-low carbon steel sheet as claimed in claim 28 wherein the obtained hot rolled steel sheet is subjected to descaling, cold rolling with a reduction of at least 45%, and annealing, with soaking being carried out at a temperature of at least 650°C when the annealing treatment is batch annealing and at a temperature of at least 750°C when the annealing treatment is continuous annealing, and then temper rolling is carried out.

33. (Original) A method of manufacturing an ultra-low carbon steel sheet as claimed in claim 29 wherein the obtained hot rolled steel sheet is subjected to descaling, cold rolling with a reduction of at least 45%, and annealing, with soaking being carried out at a temperature of at least 650°C when the annealing treatment is batch annealing and at a temperature of at least 750°C when the annealing treatment is continuous annealing, and then temper rolling is carried out.

34. (Original) A method of manufacturing an ultra-low carbon steel sheet as claimed in claim 30 wherein the obtained hot rolled steel sheet is subjected to descaling, cold rolling with a reduction of at least 45%, and annealing, with soaking being carried out at a temperature of at least 650°C when the annealing treatment is batch annealing and at a temperature of at least 750°C when the annealing treatment is continuous annealing, and then temper rolling is carried out.